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Nos. 82-354, 82-355 and 82-398

IN THE
Supreme Court of the United States

OCTOBER TERM, 1982

MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE UNITED STATES, INC., *et al.*, *Petitioners*
v.
STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et al.*

CONSUMER ALERT AND PACIFIC LEGAL FOUNDATION, *Petitioners*
v.
STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et al.*

UNITED STATES DEPARTMENT OF TRANSPORTATION, *et al.*, *Petitioners*
v.
STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et al.*

On Writs Of Certiorari To The United States Court Of Appeals For The District Of Columbia Circuit

BRIEF OF THE AUTOMOTIVE OCCUPANT PROTECTION ASSOCIATION AS *AMICUS CURIAE*

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QUESTIONS PRESENTED

1. Whether the Court of Appeals was correct in concluding that rescission of the passive restraint requirement in Modified Standard 208 was rendered arbitrary and capricious because the agency did not first consider some other version of a passive restraint requirement, namely air bags to satisfy the statutory criteria?

2. What exactly is an air bag passive restraint system?

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OPINIONS BELOW

The June 1, 1982 opinion of the court of appeals (Pet. App. 1a-76a) is reported at 680 F.2d 207. The August 4, 1982 supplemental order and memorandum of the Court of Appeals (Pet. App. 79a-82a) are not reported. The decision of the Administrator of the National Highway Traffic Safety Administration rescinding the passive restraint requirements of Federal Motor Vehicle Safety

Standard 208 (Pet. App. 88a-129a) is published at 46 Fed. Reg. 53419.

JURISDICTION

The jurisdiction of the court of appeals rested on 15 U.S.C. § 1394(a)(1). The judgment of the court of appeals (Pet. App. 160a-161a) was entered on June 1, 1982 and the supplemental order of the court of appeals (Pet. App. 79a-80a) was entered on August 4, 1982. The petitions for a writ of certiorari in Nos. 82-354 and 82-355 were filed on August 30, 1982. On August 24, 1982, the Chief Justice extended the time for filing a petition for a writ of certiorari in No. 82-398 to and including September 8, 1982, and the petition was filed on that date. The petitions for a writ of certiorari were granted on November 8, 1982. Leave to file a brief *amicus curiae* by the Automotive Occupant Protection Association was also granted on November 8, 1982.

STATUTORY PROVISIONS INVOLVED

The pertinent provisions of the Administrative Procedure Act, 5 U.S.C. § 706, and the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. §§ 1381 et seq., are reproduced at Jt. App. 162a, 163a.

STATEMENT

This *amicus* adopts the Statement to be found in the Brief of Respondents, National Association of Independent Insurers, et al., but incorporates by reference herein as important background information the statement of the case and the passive restraint history to that date (*circa* 1978-1979) as found in the opinion of the United States Court of Appeals for the District of Columbia Circuit in *Pacific Legal Foundation* v. *Depart-*

ment of Transportation, et al., 593 F.2d 1338, 1340-1343 (D.C. Cir. 1979), cert. den., 444 U.S. 830 (1979).

ARGUMENT

I. THE COURT OF APPEALS WAS CORRECT IN CONCLUDING THAT RESCISSION OF THE PASSIVE RESTRAINT REQUIREMENT IN MODIFIED STANDARD 208 WAS RENDERED ARBITRARY AND CAPRICIOUS BECAUSE THE AGENCY DID NOT FIRST CONSIDER WHETHER SOME OTHER VERSION OF A PASSIVE RESTRAINT REQUIREMENT, TO WIT AIR BAGS, WOULD SATISFY THE STATUTORY CRITERIA

Though the whole notion of a safety standard for automobiles commenced and was considered from its inception to be an "air bag standard," both by the Executive Branch and its agency of supervision, NHTSA, and the Congress of the United States, the Court of Appeals was eminently correct when it concluded that NHTSA's "analysis of airbags was non-existent" in Notice 25. While the United States Court of Appeals for the Sixth Circuit labeled the standard as "more descriptively the Air Bag Standard" in *Chrysler Corporation* v. *Department of Transportation*, 472 F.2d 659, 664, the agency did not deal with air bags as an obvious alternative, because "domestic manufacturers have decided to use" easily detachable seat belts rather than air bags to comply with the standard.

The Solicitor General uses two main arguments why the failure of NHTSA to consider some use-compelling version of a passive restraint requirement was not arbitrary and capricious. He proclaims firstly that the agency "concluded that it should not do so, based on past congressional reaction to use-compelling devices, public fears about being trapped, and the possible complication of extrication after an accident." The Solicitor General

directed this statement to "continuous belts" and not air bags and the citation supporting these items of Congressional reaction, fear of being trapped and complications of extrication make reference to ignition interlocks or continuous seat belts—not to air bags.[1]

With regard to air bags, the Government brief speaks of the costs "acknowledged" by the appellate court and also argues that "there is no reason in law, policy or common sense why NHTSA was required to retain on the books the one passive restraint requirement that it already had evaluated and found wanting," specifically air bags. *Brief for the Federal Parties*, pp. 36-38. But, the fact of the matter is that NHTSA has not reached the "found wanting" conclusion as far as air bags are concerned. At the very time that this brief is being written and the brief for the Federal Parties was written, it was reviewing proposals for an air bag demonstration project to design, fabricate and evaluate a kit for retrofitting the automobiles of one or more state police fleets for air bags and had entered into an agreement with the General Services Administration for the purchase by the Federal Government of 5,000 1985 model year vehicles equipped with air bags. *Ibid.*, fn. 12, p. 12, citing news items in the *Commerce Business Daily* for October 25, 1982, at p. 1 and the *Wall Street Journal* for December 15, 1982, at p. 11.

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[1] Secretary "Adams insisted that the interlock system met with public obloquy, because it required affirmative action by the occupant, while passive restraints by definition make no such demand. Because passive restraints would not force changes in public behavior, Adams concluded, there was no need to wait for a demonstration program to convert public attitudes." *Pacific Legal Foundation* v. *Department of Transportation*, 593 F. 2d 1338, 1342 (D.C. Cir. 1979); cert. den., 444 U.S. 830 (1979).

Again, as the United States Court of Appeals for the District of Columbia Circuit has well indicated, the agency did not deal with air bags as an obvious alternative in its analysis in Notice 25 because "domestic manufacturers have decided to use"[2] easily detachable seat belts rather than air bags to comply with the standard. *Pet. App.* 63a. The agency also indicated that "although benefits would be *greater* if [larger cars were equipped with air bags] it does not appear that this will happen." *Ibid. (Emphasis supplied.)*

The agency thus placed the announced intentions of the domestic automobile industry over the safety of the American motorist—at least for the time being. As a matter of conscience and undoubtedly urged on by the notions and expertise of its career personnel, it could not "deep six" the idea of air bags forever, as the viable alternative that the American public could accept. This is undoubtedly the reason why the agency is supporting with its dollars the airbagging of state police fleets and government vehicles to be processed in the not too distant future. Parenthetically and *passim*, one might wonder when the *vox populi* will be heard when the agency ex-

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[2] Congress, by statute, provided that belt systems in non-passenger vehicles, convertibles and open-body type vehicles might be "detachable" but did not provide for a "detachable" feature in seat belt systems for passenger vehicles. See § 125, National Traffic and Motor Vehicle Safety Act of 1966, as amended, 15 U.S.C. § 1410b(f)(2), stating that "the term 'belt system' means an occupant restraint system consisting of integrated lap and shoulder belts for front outboard occupants and lap belts for other occupants. With respect to (A) motor vehicles other than passenger vehicles (B) convertibles and (C) open-body type vehicles, such term also includes an occupant restraint system consisting of lap belts or lap belts combined with *detachable* shoulder belts." *(Emphasis supplied.)*

periments in a way that will protect only some men in blue and some Federal Government bureaucrats. Be that as it may, such an arbitrary and capricious approach, alone, would require or perhaps demand that the United States Court of Appeals for the District of Columbia Circuit, steeped in the history of this Standard 208 from previous litigation on its docket, would exercise its necessarily narrow jurisdiction as a reviewing court and rescind the action of the agency. See *Pacific Legal Foundation* v. *Department of Transportation, et al., supra.*

The clear and palpable turnabout by the agency after years of endeavoring to secure the safety of the driver and the car passengers by passive restraints represents an abnegation of responsibility by the agency. This would require the reviewing court to halt the arbitrary and capricious activities of the agency, as the latter completely ignored the intent of the safety statute.

In fine, the United States Court of Appeals for the District of Columbia Circuit was correct in finding that NHTSA acted in an arbitrary and capricious manner when it did not first consider some other version of a passive restraint, to wit, the air bag, as an alternative, which would satisfy the statutory criteria.

II. THE AIR BAG PASSIVE RESTRAINT SYSTEM—AN ANALYSIS

A. The Air Bag And Its Operation

An air bag is a fabric bag which, when needed during a major frontal collision, is instantly inflated by nitrogen gas to position itself between an automobile driver and the steering column, or a passenger and the dashboard and windshield. It functions as a pillow that catches the occupant to protect him from being injured from impacting the hard steering column, dashboard or windshield.

The collision between an occupant and a steering column, dashboard or windshield is often called the "second collision," because it occurs a split second after the first collision, the impact of the automobile with another vehicle, a pole or other object. The first collision damages the vehicle; the second collision damages its occupants.

In contrast to such common and complex auto convenience equipment as air conditioning, automatic transmissions and stereo radios, air bag systems are simple, lightweight and inexpensive. An air bag system basically consists of crash sensors, wiring, an inflator and the folded bag. For the driver's side, the inflator and folded bag weigh less than five pounds and are placed in the hub of the steering wheel, out of sight and indistinguishable from many present model steering wheels. The passenger side bag and inflator are installed completely out of sight in the dashboard. Air bag equipped automobiles are essentially indistinguishable from non-air bag cars, except that the former have no shoulder harnesses. As is the case with such other passive (i.e. automatic) emergency protection systems—such as electrical fuses and energy absorbing steering assemblies—air bag systems are completely out of sight and function only in the emergencies for which they are designed.

The operation of the air bag system is remarkably simple. Crash sensors, objects the size of golf balls, are located in the front of the automobile to activate the system in collisions of such severity that, but for the air bag, the occupants would strike the interior of the car during the "second collision" at a velocity of about twelve (12) miles per hour or greater. The sensors do not activate the system at lower striking speeds. In major frontal impacts the sensors close an electrical circuit to an inflator, which then generates nitrogen gas (the major com-

ponent of the air we breathe) to inflate the bag. The sensing, ignition and deployment of the air bag occur in the split second after the collision of the automobile (the first collision) but well before the occupant who is still moving forward has had the second collision with the interior of the car. The deployed air bag catches and cushions the hurtling occupant, limiting his forward motion. Thus, an air bag may prevent death and serious injury.

The entire air bag system is extremely free from wear and breakdown because of its simplicity and the fact that it contains a minimum of moving parts. There is literally nothing to wear out. In addition, nearly all air bag systems include a diagnostic circuit similar to those on present cars which indicate need for maintenance.

An automatic air bag is intrinsically passive in nature, i.e. it requires no action by the vehicle occupants to obtain protection in crashes; a continuous seat belt is likewise intrinsically passive in nature.[3] An easily detachable belt loses its passive nature as soon as it is detached because thereafter action by the vehicle occupants is required to obtain crash protection.

B. The Cost Of The Air Bag

The air bag system is relatively inexpensive because of its simplicity. In the hearing before the National Highway Traffic Safety Administration in this matter, specifi-

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[3] The passive restraints (air bags or continuous seat belts) required by FMVSS 208 would have been subject to dynamic testing (e.g. satisfactory performance in actual automobile crashes with test dummies as occupants). Present day active seat belts, however, are not required to be tested dynamically; they are merely tested statically by laboratory means.

cally on August 5, 1981, Mr. Ralph Rockow, Chairman of this *amicus*, testified as follows concerning the air bag cost to the consumer, based on the production of air bags for two million automobiles:[4]

$ 65 — Module (air bag, inflator, sheet metal)
30 — Sensors, Diagnostic System, Wiring
10 — Slip-ring assembly, Decorative Cover, Misc.
$105 — Total Cost for Parts
37 — Installation & Special Tooling (36%)
$142 — Total Cost per Vehicle
21 — Profit to Manufacturer (15%)
$163 — Cost to Dealer
49 — Dealer Profit for Optional Accessory (30%)
$212 — TOTAL PRICE TO CONSUMER FOR AIR BAG (Including all markups)
$212 — TOTAL PRICE TO CONSUMER
- 27 — Incremental Cost Reduction for Changing from Today's Three-Point Belts to Manual Lap Belt
$185 — PRICE INCREASE PER CAR TO CONSUMER.

Thus, including manufacturer and dealer markup, air bags at this volume would be cheaper than air conditioning and many vinyl roofs, special paint jobs and car radios.

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[4] Of course, as with most manufactured goods, tooling to manufacture and install them is expensive, relative to the cost of each unit. If that tooling cost is spread over many units, the unit price is greatly reduced; if the tooling is spread over few units, the unit price is increased. Thus, as noted in the Final Regulatory Impact Analysis at VI-1 to VI-10 (C.A. App. 000163 to 000172), the unit price of the air bag system is sensitive to economies of scale. Thus, if produced in the small numbers proclaimed by auto manufacturers with tooling costs recovered in the first year, they would be more expensive.

C. The Performance Of Air Bags

The air bag system has been broadly and extensively tested by the U.S. Department of Transportation, foreign and domestic car manufacturers, and foreign and domestic air bag manufacturers. It is safe, reliable and protective. At this stage, there is no doubt but that reliable air bag technology is an entirely practical way to meet the performance standards specified in FMVSS 208. In its Regulatory Impact Analysis of Notice 25, the National Highway Traffic Safety Administration affirmed its earlier conclusion in 1976 by Secretary Coleman (C.A. App. 002065 et seq., especially 002077 and 002107) and in 1977 by Secretary Adams (C.A. App. 001734 et seq., especially 001737, 001742-001744) as to the soundness of basic air bag technology, of the demonstrated effectiveness of air bags in vehicles in use and that the use of air bags would be "considered an acceptable method of compliance with the mandates of the Act."

Air bags have also been proven in actual use on the highways. General Motors Corporation sold more than 10,000 Cadillacs, Buicks and Oldsmobiles with air bags installed pursuant to options exercised by customers during the 1974-1976 model years. That fleet has had an outstanding record of safety performance and reliability. The National Highway Traffic Safety Administration monitors the performance of those General Motors air bag vehicles and the nearly 2,000 other air bag equipped cars on the road; and NHTSA's reports are part of the record in the hearing in this matter before the agency.

This fleet had rolled up almost one billion (1,000,000,000) miles on U.S. and Canadian roads by the end of 1980. There have been air bag deployments in 245 known crashes, protecting 349 front seat occupants during the same period. These crashes occurred throughout

the United States, under all kinds of temperature and weather conditions and in automobiles with high as well as low mileage.[5]

In the years 1975 to 1978 some 93,160 drivers and front seat passengers were killed in crashes of passenger cars in the United States.[6] Authoritative analysts have estimated that 38,724 of these dead Americans would have survived if their cars had been equipped with air bags.[7]

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[5] Appendix A-1 is a population adjusted map of the United States showing the number and distribution by state of air bag deployment crashes from 1972-1979. Appendix A-2 is a table of air bag deployment crashes involving high and low temperatures which shows the imperviousness of the air bag systems to temperature changes in real world settings. Appendix A-3 and Appendix A-4 show a table of air bag—equipped crashes involving vehicles with mileage greater than 40,000 miles at the time of air bag deployment which portrays the reliability of air bag systems despite long use of the automobile. These three appendices were prepared by the Insurance Institute for Highway Safety from data collected and maintained by the Department of Transportation and other public agencies and published in the Insurance Institute for Highway Safety *Status Report*, Vol. 14, No. 14, September 7, 1979.

[6] Appendix A-5 is a list of front seat automobile occupant deaths in crashes by state for 1975, 1976, 1977 and 1978. This appendix was prepared by the Insurance Institute for Highway Safety from Department of Transportation data and published by the Insurance Institute for Highway Safety in Status Report, Vol. 14, No. 14, September 7, 1979.

[7] Appendix A-6 is a table of estimates also by state for 1975, 1976, 1977 and 1978 of those front seat passenger occupants killed who would have survived if their cars had been equipped with air bags. These estimates were made by the Insurance Institute for Highway Safety based on National Highway Traffic Safety Administration effectiveness estimates for air bag systems and published in *Status Report*, Vol. 14, No. 14, September 7, 1979.

An April 21, 1982 crash near Salt Lake City illustrates the ability of air bag systems to reduce the carnage on American roads. Mrs. Lawana Hansen was driving her 81-year-old mother on Interstate I-15 when they hit a fully laden gasoline tank truck, almost head-on, at a closing speed of approximately 100 miles per hour, a crash that normally would have been fatal for both of them. Though somewhat seriously injured (each had a broken leg and one a ruptured spleen), both lived because the air bags cushioned them from the full force of the crash. The 1975 Oldsmobile involved had been purchased second-hand and had over 100,000 miles on it at the time of the crash. The Hansen Family was not aware that the vehicle was equipped with air bags, so completely unobtrusive are air bag systems. This *amicus* has prepared a brochure describing this accident, which is to be found in Appendix B to this brief.

Air bag systems are no longer available in the United States, despite their proven protectiveness. Only Mercedes-Benz offers an air bag system as an option on certain of its models, but this option is not available to Mercedes-Benz purchasers in the United States. The option is selling briskly at over 1,000 per month, even though it is only a driver side air bag and is reasonably priced. This may become another example of technology, developed and perfected in the United States, going overseas to our nation's detriment.

It is important to emphasize that, despite the Mercedes-Benz experience which belies the old Detroit canard that safety does not sell, one cannot buy an air bag equipped automobile in the United State. There is no choice, and therefore no opportunity for market forces to work as an alternative to regulation. No manufacturer offers air bags as original equipment at any price in the

United States market.[8] Retrofitting automobiles is essentially impossible because of the automobile manufacturers' failure to make simple and relatively inexpensive design adjustments of the instrument panel and steering wheel and column to accept an aftermarket air bag system.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted,

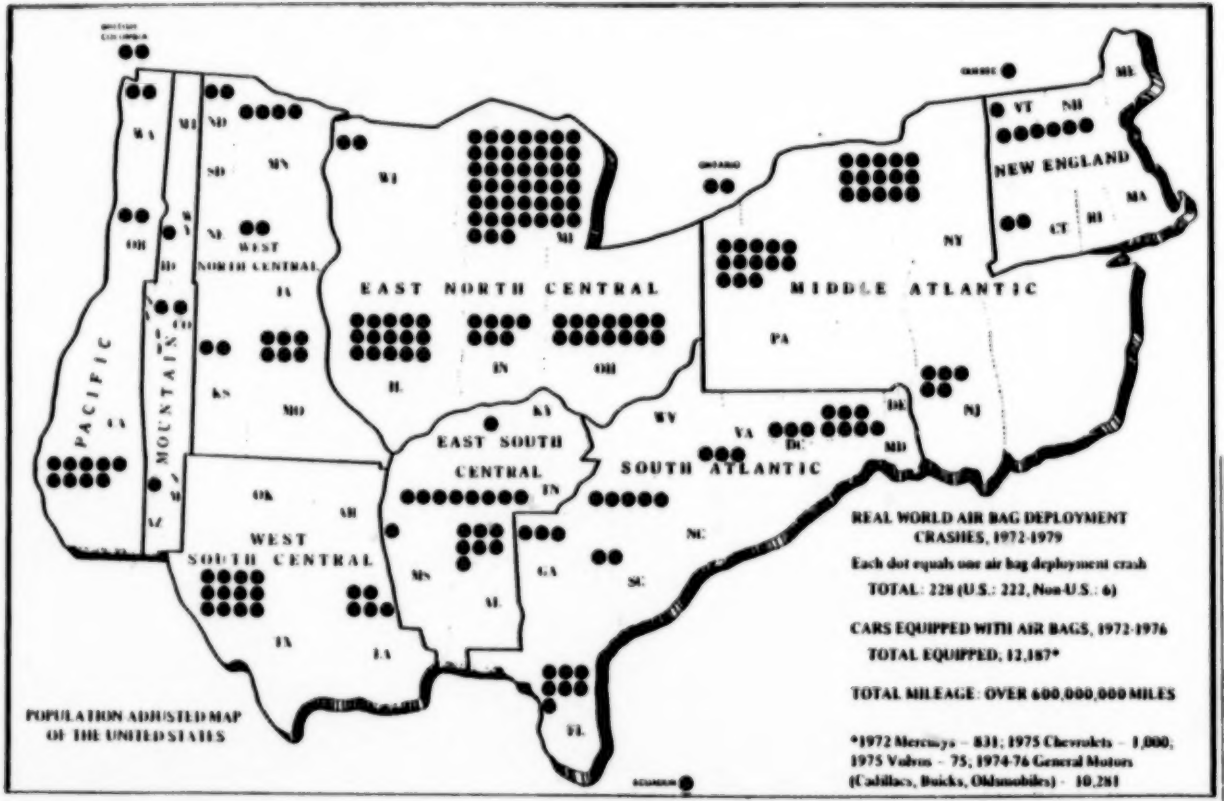
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[8] Since this brief was page-proofed but prior to final printing and binding, Mercedes-Benz has announced that driver-side air bag systems will be available in the United States market commencing with model year 1984. See letter of W.R.F. Bodack, President, Mercedes-Benz of North America, Inc., dated January 28, 1983, to the Honorable Raymond Peck, Administrator, NHTSA. *Appendix C.*


PACIFIC
MOUNTAIN
WEST NORTH CENTRAL
EAST NORTH CENTRAL
MIDDLE ATLANTIC
NEW ENGLAND
EAST SOUTH CENTRAL
SOUTH ATLANTIC
WEST SOUTH CENTRAL
POPULATION ADJUSTED MAP OF THE UNITED STATES
REAL WORLD AIR BAG DEPLOYMENT CRASHES, 1972-1979
Each dot equals one air bag deployment crash
TOTAL: 228 (U.S.: 222, Non-U.S.: 6)
CARS EQUIPPED WITH AIR BAGS, 1972-1976
TOTAL EQUIPPED: 12,187*
TOTAL MILEAGE: OVER 600,000,000 MILES
*1972 Mercuys – 831; 1975 Chevrolets – 1,000; 1975 Volvos – 75; 1974-76 General Motors (Cadillacs, Buicks, Oldsmobiles) – 10,281

Status Report, Vol. 14, No. 14, September 7, 1979

AIR BAG DEPLOYMENT CRASHES INVOLVING HIGH AND LOW TEMPERATURES

MAKE & MODEL	LOCATION OF CRASH	DATE OF CRASH	TEMPERATURE AT TIME OF CRASH (F°)
1974 Oldsmobile Delta 88 Royale	Schiller Park, Illinois	2-08-74	20-29°
1973 Chevrolet Impala	Highland, Michigan	2-15-74	19°
1974 Buick Riviera	Houston, Texas	8-23-74	90°
1975 Oldsmobile Regency 98	Cabano, Quebec	11-21-74	20°
1974 Buick Electra Custom	Columbus, Ohio	2-06-75	20's
1974 Oldsmobile Toronado	Syracuse, New York	3-14-75	27°
1973 Chevrolet Impala	Landover, Maryland	5-21-75	89°
1973 Chevrolet Impala	Needles, California	6-07-75	94°
1974 Buick Electra 225	Oyster Bay, New York	7-02-75	87°
1975 Buick Electra Limited	Ashland, New York	12-04-75	24°
1975 Oldsmobile Regency 98	Vaughan, Ontario	12-18-75	12°
1973 Chevrolet Impala	Seattle, Washington	1-01-76	31°
1975 Oldsmobile Toronado	Lombard, Illinois	1-08-76	<0°
1975 Cadillac DeVille	Bay City, Michigan	1-21-76	Lower 20's
1975 Cadillac Fleetwood	Peru, Vermont	3-07-76	30°
1974 Oldsmobile Delta 88 Royale	Lake Villa, Illinois	3-11-76	20-29°
1974 Oldsmobile 98 Regency	Tyler, Texas	6-12-76	85-90°
1975 Oldsmobile Toronado	Boston, Massachusetts	7-19-76	88°
1976 Oldsmobile Delta 88	Camden, New Jersey	7-31-76	85°
1975 Oldsmobile 98	Richmond Cty., North Carolina	9-05-76	85-90°
1974 Buick Electra 225	Montrose, Michigan	11-21-76	30-34°
1976 Cadillac Fleetwood	Elmhurst, Illinois	12-01-76	0-19°
1975 Oldsmobile 98 Regency	Faribault, Minnesota	12-05-76	<0°
1974 Cadillac DeVille	Sterling Heights, Michigan	12-23-76	0-19°
1974 Cadillac Eldorado	Detroit, Michigan	12-26-76	30°
1975 Cadillac Eldorado	Detroit, Michigan	12-28-76	24°
1976 Oldsmobile 98 Regency	New York, New York	1-15-77	26°
1975 Oldsmobile 98	Columbus, Ohio	2-22-77	20-29°
1974 Oldsmobile 98	Mendon, New York	3-01-77	22°
1975 Oldsmobile Toronado	Culver, Oregon	4-02-77	20°
1975 Oldsmobile Toronado	Cocoa Beach, Florida	7-27-77	85-90°
1975 Oldsmobile Regency 98	Lawrence Township, Pa.	12-09-77	9°
1975 Oldsmobile 98	Cass City, Michigan	1-15-78	15-20°
1975 Oldsmobile Delta 88	Moraine, Ohio	2-06-78	7°
1974 Oldsmobile Delta 88	Perry, Michigan	2-14-78	17°
1975 Oldsmobile Toronado	Charlotte, Michigan	3-06-78	28°
1975 Cadillac Fleetwood Talisman	Detroit, Michigan	2-15-79	15°

AIR BAG-EQUIPPED CRASH-INVOLVED VEHICLES WITH MILEAGES GREATER THAN 40,000 AT THE TIME OF AIR BAG DEPLOYMENT

MAKE & MODEL	LOCATION OF CRASH	DATE OF CRASH	MILEAGE AT TIME OF CRASH
1973 Chevrolet Impala	Highland, Michigan	2-15-74	54,999
1972 Mercury Monterey Custom	Valdosta, Georgia	8-22-74	63,084
1974 Oldsmobile 98 Regency	Mayhew, Mississippi	2-19-75	53,754
1973 Chevrolet Impala	Houston, Texas	3-15-75	63,695
1973 Chevrolet Impala	Somerville, Alabama	3-18-75	90,445
1973 Chevrolet Impala	San Antonio, Texas	5-08-75	61,030
1973 Chevrolet Impala	Dalton, Georgia	5-09-75	50,663
1973 Chevrolet Impala	Landover, Maryland	5-21-75	48,795
1973 Chevrolet Impala	Needles, California	6-07-75	67,333
1973 Chevrolet Impala	Milford, Michigan	7-09-75	49,320
1973 Chevrolet Impala	Seattle, Washington	1-01-76	57,165
1973 Chevrolet Impala	West Bloomfield, Michigan	4-11-76	89,255
1974 Oldsmobile Delta 88	Moorpark, California	4-21-76	48,975
1975 Oldsmobile Toronado	DuPage County, Illinois	6-03-76	55,846
1974 Oldsmobile 98 Regency	Amarillo, Texas	7-13-76	45,837
1974 Buick Riviera	Lakewood, Ohio	7-17-76	43,095
1974 Oldsmobile 98	Detroit, Michigan	7-27-76	45,000
1974 Oldsmobile 98	Madison, Wisconsin	8-17-76	69,147
1974 Buick Electra Limited	Baldwin County, Alabama	9-08-76	59,603
1973 Chevrolet Impala	Erie, Pennsylvania	9-14-76	68,031
1974 Buick Riviera	Atchison, Kansas	9-25-76	55,460
1973 Chevrolet Impala	Houghton Lake, Michigan	9-26-76	56,289
1974 Cadillac Eldorado	Mercer, Pennsylvania	10-23-76	43,193
1974 Oldsmobile 98 Regency	Red Oak, Iowa	10-25-76	75,020
1974 Buick Electra 225	Montrose, Michigan	11-21-76	41,744
1973 Chevrolet Impala	Brighton, Michigan	1-21-77	82,354
1974 Oldsmobile 98	Mendon, New York	3-01-77	85,720

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AIR BAG-EQUIPPED CRASH-INVOLVED VEHICLES WITH MILEAGES GREATER THAN 40,000 AT THE TIME OF AIR BAG DEPLOYMENT

MAKE & MODEL	LOCATION OF CRASH	DATE OF CRASH	MILEAGE AT TIME OF CRASH
1972 Mercury Monterey	Silver Spring, Maryland	3-08-77	69,809
1974 Oldsmobile 98	Hartford, Connecticut	3-18-77	73,582
1973 Chevrolet Impala	Hicksville, New York	3-27-77	114,958
1974 Oldsmobile 98	Tazewell, Tennessee	4-20-77	47,060
1975 Oldsmobile Toronado	Cortland, New York	4-25-77	51,694
1975 Cadillac Eldorado	Chattanooga, Tennessee	5-23-77	41,890
1974 Oldsmobile Toronado	Gary, Indiana	5-27-77	44,789
1975 Cadillac Eldorado	Port Orchard, Washington	6-07-77	48,857
1973 Chevrolet	La Mirada, California	6-14-77	67,066
1974 Oldsmobile 98	Toledo, Ohio	6-23-77	43,140
1974 Oldsmobile	Independence, Missouri	6-25-77	44,195
1973 Chevrolet Impala	Detroit, Michigan	7-05-77	83,811
1975 Cadillac Coupe DeVille	Akron, Ohio	7-15-77	61,114
1973 Chevrolet Impala	Burnsville, Minnesota	7-16-77	95,842
1975 Buick Electra 225	Minot, North Dakota	7-28-77	43,490
1974 Buick Riviera	Quito, Ecuador	8-17-77	48,531
1974 Buick Electra 225	DeKalb, Illinois	8-18-77	51,778
1973 Chevrolet Impala	Delano, California	9-06-77	93,788
1975 Oldsmobile 98 Regency	Langhorn, Pennsylvania	9-17-77	55,000
1975 Oldsmobile Toronado	Hamilton, Ontario	10-10-77	47,585
1974 Oldsmobile Delta 88	Atchison County, Missouri	10-19-77	50,508
1975 Oldsmobile 98	Janesville Township, Wisconsin	10-23-77	51,382
1973 Chevrolet Impala	Boaz, Alabama	11-07-77	71,878
1974 Oldsmobile Toronado	Kingsport, Tennessee	11-09-77	46,436
1973 Chevrolet Impala	San Antonio, Texas	12-13-77	101,946
1975 Oldsmobile 98	Cass City, Michigan	1-15-78	42,322
1974 Oldsmobile Delta 88	Perry, Michigan	2-14-78	70,106
1975 Cadillac Eldorado	Boise, Idaho	4-21-78	51,549
1973 Chevrolet Impala	Los Angeles, California	4-27-78	72,409
1974 Cadillac Eldorado	Chicago, Illinois	7-22-78	44,102
1973 Chevrolet Impala	St. Louis County, Missouri	12-16-78	88,369

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ACTUAL NUMBERS OF FRONT SEAT PASSENGER CAR OCCUPANT DEATHS

STATE	CALENDAR YEAR 1975	1976	1977	1978	1975-78 Combined
Alabama	529	581	622	639	2351
Alaska	51	49	46	53	199
Arizona	252	271	334	397	1254
Arkansas	279	242	273	283	1077
California	1688	1806	2074	2289	7857
Colorado	273	273	311	313	1170
Connecticut	223	212	238	203	876
Delaware	75	63	68	62	268
D.C.	18	17	19	18	72
Florida	730	814	876	1061	3481
Georgia	695	696	639	799	2829
Hawaii	81	77	79	109	346
Idaho	93	66	136	137	432
Illinois	1076	1088	1149	1127	4440
Indiana	484	454	562	492	1992
Iowa	400	416	342	330	1488
Kansas	284	300	294	305	1183
Kentucky	493	474	544	502	2013
Louisiana	498	461	456	497	1912
Maine	79	111	97	120	407
Maryland	359	296	345	331	1331
Massachusetts	444	424	327	459	1654
Michigan	939	1070	1058	1086	4153
Minnesota	385	424	384	470	1663
Mississippi	284	310	377	461	1432
Missouri	598	630	653	595	2476
Montana	134	130	158	121	543
Nebraska	189	208	174	181	752
Nevada	92	84	122	128	426
New Hampshire	82	92	79	97	350
New Jersey	566	541	576	588	2271
New Mexico	247	226	281	267	1021
New York	1129	1134	1082	1215	4560
North Carolina	845	760	739	813	3157
North Dakota	87	108	82	84	361
Ohio	992	1092	1040	1163	4287
Oklahoma	383	436	438	448	1705
Oregon	267	300	282	337	1186
Pennsylvania	1165	1160	1128	1066	4519
Rhode Island	58	56	57	27	198
South Carolina	448	439	496	502	1882
South Dakota	97	113	92	95	397
Tennessee	413	486	478	508	1885
Texas	1651	1620	1743	1862	6876
Utah	112	100	143	169	524
Vermont	79	68	64	59	270
Virginia	509	523	612	572	2216
Washington	412	431	500	525	1868
West Virginia	256	283	298	266	1103
Wisconsin	489	499	519	554	2061
Wyoming	86	107	100	93	386
ALL STATES	**22096**	**22601**	**23585**	**24878**	**93160**

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ESTIMATED NUMBERS OF FRONT SEAT PASSENGER CAR OCCUPANT DEATHS THAT COULD HAVE BEEN PREVENTED BY AIR BAGS

STATE	CALENDAR YEAR 1975	1976	1977	1978	1975-78 Combined*
Alabama	266	217	235	238	956
Alaska	20	17	14	19	71
Arizona	69	88	112	138	407
Arkansas	113	96	121	142	472
California	532	662	819	876	2889
Colorado	84	78	97	99	358
Connecticut	100	84	99	88	371
Delaware	17	10	29	28	84
D.C.	7	7	9	7	30
Florida	280	313	324	401	1318
Georgia	312	277	240	325	1155
Hawaii	39	36	31	50	156
Idaho	30	24	50	37	141
Illinois	441	451	467	454	1814
Indiana	166	186	216	197	765
Iowa	162	138	151	149	600
Kansas	131	149	146	135	561
Kentucky	227	227	251	249	954
Louisiana	238	211	194	220	863
Maine	35	48	45	44	171
Maryland	156	160	181	163	660
Massachusetts	211	212	176	243	842
Michigan	305	342	347	374	1369
Minnesota	127	133	128	159	546
Mississippi	78	99	154	192	524
Missouri	272	252	288	251	1063
Montana	56	45	48	35	184
Nebraska	76	86	65	75	302
Nevada	45	28	49	46	168
New Hampshire	37	27	27	42	134
New Jersey	278	282	287	309	1156
New Mexico	89	96	112	109	406
New York	436	513	501	572	2021
North Carolina	338	305	274	330	1247
North Dakota	40	45	33	40	158
Ohio	444	493	466	501	1904
Oklahoma	166	168	174	199	707
Oregon	101	103	112	130	446
Pennsylvania	657	807	423	694	2582
Rhode Island	21	27	26	13	87
South Carolina	192	172	210	204	777
South Dakota	35	41	27	35	138
Tennessee	199	220	217	230	865
Texas	696	675	732	725	2828
Utah	37	35	57	64	193
Vermont	27	23	29	21	99
Virginia	211	242	276	249	978
Washington	143	157	171	197	667
West Virginia	89	102	141	138	467
Wisconsin	244	211	232	251	937
Wyoming	28	42	33	29	132
ALL STATES*	**9103**	**9462**	**9842**	**10516**	**38724**

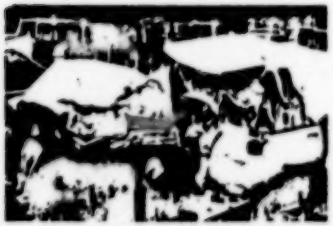
*Totals do not add because of rounding.



"The thing that amazed me is that the thing was six years old and usually after six years you can't get the windshield wipers to work." Mr. Hansen



"Where will we find another car with air bags? We'll never be satisfied riding in a car without air bags." Mrs. Hansen



"I've always been against air bags because I thought they would ruin the looks of the car, but you really can't tell they're in there." Mr. Hansen

automotive occupant protection association

[redacted]

MIRACULOUSLY SAVED BY AN AIR BAG



"I didn't even know the car had air bags. I had seen the red 'air cushion' light whenever I started the car, but I didn't know what it meant." Mr. Hansen

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"It's a miracle my wife and her mother lived. *The steering wheel was pushed back to within inches of the seat back. The brake was pushed to within two inches of the seat. Neither woman had any cuts or marks above their knees, the bags protected them from broken glass."*

Mr. Hansen

On the morning of April 21, 1981, Mrs. Lawana Hansen and her 81-year-old mother were enroute from her home in Sandy, Utah to Twin Falls, Idaho. Heading north along I-15 in Salt Lake City their 1975 Oldsmobile was sideswiped by another vehicle.

Mrs. Hansen lost control as the car swerved across the median, striking a loaded gasoline tanker almost head on. Shattering glass and crushing metal . . . **a crash that normally would have been fatal.**

Lawana Hansen and her mother were seriously injured, **but not killed**, in the accident. Mrs. Hansen suffered a ruptured spleen and a broken leg. Her mother broke a leg and incurred other minor injuries. The accident was so severe that investigators were amazed that both women lived . . . yet, they survived. HOW?

Fortunately for the two women, but totally unknown to them at the time, their car was equipped with air bags. On impact, the air bags filled up, cushioning the women from the full force of the crash.

State and local police — who had never encountered an air bag crash — said the women probably would not have survived without this lifesaving system.



"I wish I could let people know how important air bags are." Mrs. Hansen

Accident investigators later estimated both vehicles were traveling about 50 MPH, resulting in a closing speed of about 100 MPH. In almost every other instance, such a crash would have been fatal to the occupants of the automobile, certainly elderly passengers.

Mrs. Hansen's husband said he purchased the Olds as a used car and was completely unaware that the vehicle was equipped with air bags. The car was one of about 10,000 air bag equipped cars built by General Motors during the early 1970s.

But GM — claiming that the air bags are too costly — no longer makes this lifesaving system available to new car buyers. In addition to the Hansens, there are countless others who can't understand why these safety systems aren't available today.

With more than 50,000 Americans killed on our highways each year, and hundreds of thousands injured, these lifesaving systems shdould be offered to every new car buyer.

The time is now, Congressman . . . there is no legitimate reason to prevent Americans from equipping their new autos with air bags. Technical arguments against the safety devices have been refuted . . . air bags work and they work well. They save lives!

You have the duty and the right to protect our citizens from needless death and injury. You must speak for your constituents and demand that the auto companies build the safest possible cars. DOT's failure to enforce the automatic crash protection standard in a timely fashion will only result in continued deaths and injuries . . . and the question asked by the Hansens and others will remain unanswered . . . "Why?"

C-1



MERCEDES-BENZ OF NORTH AMERICA, INC.

W. R. P. BODACH
PRESIDENT

ONE MERCEDES DRIVE
P. O. BOX 350
MONTVALE, NEW JERSEY 07645
(201) 573-0600

January 28, 1983

Hand Delivered

The Honorable Raymond Peck
Administrator
National Highway Traffic
Safety Administration
United States Department
of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Peck:

This is in further reference to your letter of January 20, 1982 inviting voluntary industry participation in a joint government-industry effort to offer inflatable restraint technology as an option to the American car buyer.

At the direction of the Board of Management of our parent company, Daimler-Benz A.G., I am pleased to advise you that, effective in model year 1984, Mercedes-Benz of North America, Inc. will offer as an option on certain Mercedes-Benz automobiles sold in the United States a Supplemental Restraint System ("SRS"). Similar to the system currently offered in Europe, the SRS will consist of our standard 3-point manual safety belt supplemented by an air bag and knee bolster on the driver's side and a standard 3-point manual safety belt with an Emergency Tensioning Retractor ("ETR") for the right front passenger.

While exact marketing details have not yet been completed, we currently anticipate a three-phase program to introduce this technology in the American market and to test its market acceptability. During Phase I of this program, which will begin in MY 1984, a minimum of 10 percent of our W126 series vehicles as well as a minimum of 10 percent of our new W201 series vehicles (which will be introduced at that time) will be equipped with the SRS. We anticipate this will involve approximately 5,000 vehicles. During this initial phase, the number of units so equipped may be increased if market response warrants.

In Phase II, which will begin in MY 1985, the option will be available in the model 380SL. In addition, if market acceptability continues to increase, a higher percentage of Phase I vehicles will be included in the program.

Beginning in MY 1986 and based on market experience, we would enter Phase III in which availability of the option could be extended across the entire model range.

The decision to offer this advanced concept of occupant protection in North America is based on two factors. First, favorable acceptance of the system in Europe and second, efforts by your agency to encourage increased seat belt usage in the United States. Because our supplemental restraint system is geared to active belt usage, the adoption of a mandatory seat belt usage law in Germany enabled us to proceed with the introduction of the system there in December 1980. Lack of similar requirements in the U.S. delayed our decision as to availability in this market. Since that time the government's support of programs to encourage seat belt usage and new interest in "buckle up" campaigns make it practical to now offer the Mercedes-Benz Supplemental Restraint System.

Finally, in response to the nationwide program to encourage seat belt usage, I want to inform you that we intend to take the following steps:

1) Mercedes-Benz ads and commercials will carry a motivational message regarding the use of seat belts.

2) Mercedes-Benz employees will be asked to participate in a company-wide "buckle up" campaign.

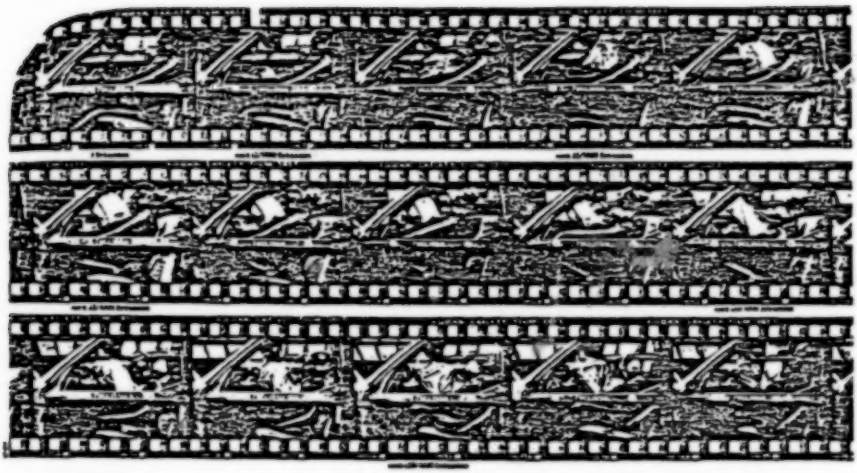
In closing, I am pleased to be able to provide this report to you as a further example of the viability of achieving the goals of your agency through voluntary, cooperative efforts.

Best regards.

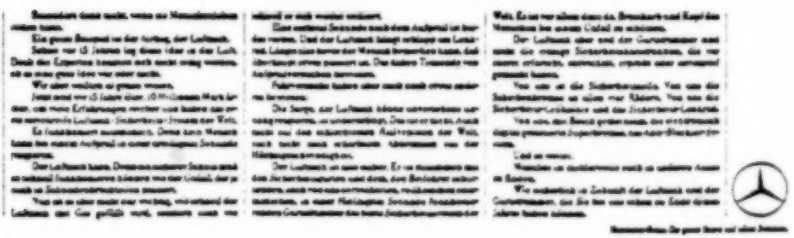
Sincerely,

W. Hoelzle

WB/ck



Eine gute Idee darf man nicht aufgeben.



C-4

A GOOD IDEA MUST NOT BE GIVEN UP

Especially not, if it can save human lives.

A good example of that is the air bag. Fifteen years ago this idea was already in the air. However, the experts could not make up their minds whether it was a good idea or not.

We wanted to find out.

Now we are 15 years older, 10 million marks poorer, richer in experience and have the first air bag safety system in the world ready for series production. It works automatically. For no human being can react in a crash in 1/30 of a second.

The air bag can. For a reliable safety device must be able to function as fast as the accident, which also happens in fractions of a second.

Now, it is not only important how fast the air bag is filled with gas, but also how fast it is emptied again.

In 1/6 of a second after the crash, both are over and the air bag hangs flabby at the steering wheel. Long before the human being can find out that something happened at all. This has been proved in thousands of crash tests.

Driving tests have also proved something else:

Concern that the air bag might react when not necessary is not justified. It does not!

Not on the worst rally tracks in the world, not after using full brake at highest speed.

So the air bag is safe. In connection with the safety belts and the fully automatic pretensioning device, also developed by us, functioning in 1/50 of a second and protecting the front seat passenger, the air bag is the best safety system in the world. Above all, it is there to protect chest and head of the human being in an accident. But the air bag and the pretensioning device are not the only safety measures which we were first to investigate, develop, test, and make ready for series production. We have invented the safety cell. We have invented power brakes on all 4 wheels. We have invented the safety steering column and the safety steering wheel.

We, in cooperation with Bosch, have invented the electronic digital controlled super brake, the anti-locking system.

And so on.

Meanwhile, some of this can be found also in other cars.

As, we are sure, in the future also the air bag and the pretensioning device will be found in other cars, both of which you can have from us already by the end of this year.

MERCEDES-BENZ, Your Lucky Star on All Roads